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4 January 1956

MEMORANDUM FOR THE RECORD

SUBJECT: Meeting with General Precision Laboratory Regarding  
Project Interest in Radan

1. Time and Place of Meeting:

The meeting was held on 3 January 1956 in the office of  
General Precision Laboratory, Pleasantville, New York.

2. Attendance:

GFL  
"  
"  
"  
Project Staff  
"  
"

3. Discussion:

a. Mr. Bissell introduced himself as a special assistant to  
as ARDC personnel assigned  
to his office for work on this special project. No indication of  
Agency interest was given during any of the discussions that followed.  
was given a mailing address (c/o office,  
Attention: Colonel Berg), and a telephone number  
Extension

b. Mr. Bissell outlined the Project requirements with regard  
to the need for a "ground speed-drift angle" input for the AN/APQ-56  
and a mission navigation system. While the latter was mentioned, it  
was not discussed to any degree.

c. proceeded to outline the position of GFL in  
the field of air navigation. He reviewed the GFL-built AN/APN-51,  
59, 66, 82 and 96 with regard to function, weight, and production  
status. This material was used as background for the Radan discus-  
sion which followed.

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d. [ ] continued by describing the Radan system in some detail. The system is composed of an antenna-receiver-transmitter unit (ART, a frequency tracker, an instrument panel indicator and a control panel. The system is capable of giving readings of ground speed and drift angle with respective accuracies of  $\pm 1.5\%$  and  $\pm 0.5\%$ . The weights involved in the various units are: ART - 45 lbs; frequency tracker - 35 lbs; indicator - 2 lbs; control panel - 1 lb; cabling - 5 to 10 lbs. This totals 88 to 93 lbs. The Radan power requirements are 1 ampere @ 28 volts, dc, and 400 watts (500 VA) @ 380 - 420 cps. No pressurization is required for the ART unit. Other units must be mounted in cabin area. Cooling air is required for the ART and frequency tracker units. The system is designed to function over temperature ranges of  $-40^{\circ}\text{C}$  to  $+55^{\circ}\text{C}$  and at altitudes of 100 to 70,000 feet. It operates at a frequency of 8800 mc/s. Production prototypes (6) are due to be finished in June-July 1956 with production models (30) to follow.

e. In discussing the tie-in with the APQ-56, it was stated that the outputs from the Radan system occur as shaft or synchro rotations at the instrument panel indicator. Ground speed is presented as a shaft rotation of  $36^{\circ}/100,000$  fpm (standard for ASH-6 GPI input) and drift angle is presented by synchro rotation of  $1^{\circ}/\text{degree}$ . Both of these outputs are felt to be compatible with APQ-56 requirements.

#### 4. Action:

a. GPI is to consider its position regarding the submission of a proposal to produce the Radan system for the Project.

25X1 b. Mr. Bissell, [ ] are to consider the Project's position on the same basis.

25X1 c. [ ] is to contact [ ] on Friday to discuss the outcome of the two meetings.

d. Colonel Berg's office is to be notified of the mail channel and provide the necessary back up.

#### Distribution:

- 1 - EQUINE Master
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